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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/913,858A

DATE: 04/09/2003

TIME: 11:30:17

Input Set : A:\030560-057.ST25.txt

Output Set: N:\CRF4\04092003\I913858A.raw

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4 <110> APPLICANT: Altmann, Friedrich
6 <120> TITLE OF INVENTION: Fucosyl Transferase Gene
8 <130> FILE REFERENCE: 030560-057
10 <140> CURRENT APPLICATION NUMBER: US 09/913,858A
11 <141> CURRENT FILING DATE: 2001-08-20
13 <150> PRIOR APPLICATION NUMBER: PCT/AT00/00040
14 <151> PRIOR FILING DATE: 2000-02-17
16 <150> PRIOR APPLICATION NUMBER: AT A 270/99
17 <151> PRIOR FILING DATE: 1999-02-18
19 <160> NUMBER OF SEQ ID NOS: 17
21 <170> SOFTWARE: PatentIn version 3.1
23 <210> SEQ ID NO: 1
25 <211> LENGTH: 2198
26 <212> TYPE: DNA
27 <213> ORGANISM: Unknown Organism
29 <220> FEATURE:
30 <223> OTHER INFORMATION: Description of Unknown Organism:plant
32 <400> SEQUENCE: 1
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34 aaaaaacaac agcaagctgt gtttttttta tcgttctttt tctttaaaca agcaccacca 120
35 tcatggaatc gtgctcataa cgccaaaatt ttccatttcc ctttgatttt tagtttattt 180
36 tgcggaattg gcagttgggg ggcgaattga atgatgggtc tgttgacgaa tcttcgaggc 240
37 tcgagaacag atggtgccca acaagacagc ttaccggttt tggctccggg aggcaacca 300
38 aagaggaaat ggagcaatct aatgcctctt gttgttgccc ttgtggtcat cgcgagatc 360
39 gcgtttctgg gtaggttgga tatggccaaa aacgcgcgca tgggtgactc cctcgtgac 420
40 ttctttctacc gctctcgagc ggtcgttgaa ggtgacgatt tggggttggg tttggtggct 480
41 tctgatcgga attctgaatc gtatagttgt gaggaatggt tggagaggga ggatgctgtc 540
42 acgtattcga ggggcttttc caaagagcct atttttgttt ctggagctga tcaggagtgg 600
43 aagtcgtggt cggttggttg taaatttggg tttagtgggg atagaaagcc agatgccgca 660
44 tttgggttac ctcaaccaag tggaacagct agcattctgc gatcaatgga atcagcagaa 720
45 tactatgctg agaacaatat tgccatggca agacggaggg gatataacat cgtaatgaca 780
46 accagtctat cttcggatgt tcctgttgga tatttttcat gggctgagta tgatatgatg 840
47 gcaccagtgc agccgaaaac tgaagctgct cttgcagctg ctttcatttc caattgtggt 900
48 gctcgaaatt tccggttgca agctcttgag gcccttgaaa aatcaaacat caaaattgat 960
49 tcttatggtg gttgtcacag gaaccgtgat ggaagagtga acaaagtgga agccctgaag 1020
50 cactacaat tttagcttagc gtttgaaaat tcgaatgagg aagattatgt aactgaaaaa 1080
51 ttcttccaat cccttggtgc tggaactgtc cctgtggttg ttggtgctcc aaatattcag 1140
52 gactttgctc cttctcctgg ttcaatttta catattaaag agatagagga tgttgagtct 1200
53 gttgcaaaga ccatgagata tctagcagaa aatcccgaag catataatca atcattgagg 1260
54 tggaagtatg agggccatc tgactccttc aaggcccttg tggatatggc agctgtgcat 1320
55 tcatcgtgcc gtctttgcat tcacttgcc acagtgahta gagagaagga agaaaataat 1380
56 ccaagcctta agagacgtcc ttgcaagtgc actagagggc cagaaaccgt atatcatatc 1440
57 tatgtcagag aaaggggaag gtttgagatg gagtccattt acctgaggtc tagcaattta 1500

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58 actctgaatg ctgtgaaggc tgctgttggt ttgaagttca catccctgaa tcttgtgcct 1560
59 gtatggaaga ctgaaaggcc tgaagttata agagggggga gtgctttaaa actctacaaa 1620
60 atatacccaa ttggcttgac acagagacaa gctctttata ccttcagctt caaagggtgat 1680
61 gctgatttca ggagtcactt ggagaacaat ccttgtgcca agtttgaagt catttttgtg 1740
62 tagcatgcgc taaatggtag ctctgctcta cctgaattag cttcacttag ctgagcacta 1800
63 gctagagttt taggaatgag tatggcagtg aatatggcat ggctttattt atgcctagtt 1860
64 tcttggccaa ctcatgatg ttttgtataa gacatcacac ttttaatttta aacttgtttc 1920
65 tgtagaagtg caaatccata tttaatgctt agttttagtg ctcttatctg atcatctaga 1980
66 agtcacagtg cttgtatatt gtgagtgaata actgaaatct aatagaagga tcagatgttt 2040
67 cactcaagac acattattac ttcattgtgt tttgatgatc tcgagctttt ttagtgtctg 2100
68 gaactgtccc tgtggtttga gcacctgtta ttgcttcagt gttactgtcc agtggttatc 2160
69 gtttttgacc tctaaaaaaaa aaaaaaaaaa aaaaaaaaaa - - - 2198

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71 <210> SEQ ID NO: 2

72 <211> LENGTH: 510

73 <212> TYPE: PRT

74 <213> ORGANISM: Unknown Organism

76 <220> FEATURE:

77 <223> OTHER INFORMATION: Description of Unknown Organism:plant

79 <400> SEQUENCE: 2

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80 Met Met Gly Leu Leu Thr Asn Leu Arg Gly Ser Arg Thr Asp Gly Ala
81 1 5 10 15
83 Gln Gln Asp Ser Leu Pro Val Leu Ala Pro Gly Gly Asn Pro Lys Arg
84 20 25 30
86 Lys Trp Ser Asn Leu Met Pro Leu Val Val Ala Leu Val Val Ile Ala
87 35 40 45
89 Glu Ile Ala Phe Leu Gly Arg Leu Asp Met Ala Lys Asn Ala Ala Met
90 50 55 60
92 Val Asp Ser Leu Ala Asp Phe Phe Tyr Arg Ser Arg Ala Val Val Glu
93 65 70 75 80
95 Gly Asp Asp Leu Gly Leu Gly Leu Val Ala Ser Asp Arg Asn Ser Glu
96 85 90 95
98 Ser Tyr Ser Cys Glu Glu Trp Leu Glu Arg Glu Asp Ala Val Thr Tyr
99 100 105 110
101 Ser Arg Gly Phe Ser Lys Glu Pro Ile Phe Val Ser Gly Ala Asp Gln
102 115 120 125
104 Glu Trp Lys Ser Cys Ser Val Gly Cys Lys Phe Gly Phe Ser Gly Asp
105 130 135 140
107 Arg Lys Pro Asp Ala Ala Phe Gly Leu Pro Gln Pro Ser Gly Thr Ala
108 145 150 155 160
110 Ser Ile Leu Arg Ser Met Glu Ser Ala Glu Tyr Tyr Ala Glu Asn Asn
111 165 170 175
113 Ile Ala Met Ala Arg Arg Arg Gly Tyr Asn Ile Val Met Thr Thr Ser
114 180 185 190
116 Leu Ser Ser Asp Val Pro Val Gly Tyr Phe Ser Trp Ala Glu Tyr Asp
117 195 200 205
119 Met Met Ala Pro Val Gln Pro Lys Thr Glu Ala Ala Leu Ala Ala Ala
120 210 215 220
122 Phe Ile Ser Asn Cys Gly Ala Arg Asn Phe Arg Leu Gln Ala Leu Glu
123 225 230 235 240

```

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```

125 Ala Leu Glu Lys Ser Asn Ile Lys Ile Asp Ser Tyr Gly Gly Cys His
126                               245                               250                               255
128 Arg Asn Arg Asp Gly Arg Val Asn Lys Val Glu Ala Leu Lys His Tyr
129                               260                               265                               270
131 Lys Phe Ser Leu Ala Phe Glu Asn Ser Asn Glu Glu Asp Tyr Val Thr
132                               275                               280                               285
134 Glu Lys Phe Phe Gln Ser Leu Val Ala Gly Thr Val Pro Val Val Val
135                               290                               295                               300
137 Gly Ala Pro Asn Ile Gln Asp Phe Ala Pro Ser Pro Gly Ser Ile Leu
138 305                               310                               315                               320
140 His Ile Lys Glu Ile Glu Asp Val Glu Ser Val Ala Lys Thr Met Arg
141                               325                               330                               335
143 Tyr Leu Ala Glu Asn Pro Glu Ala Tyr Asn Gln Ser Leu Arg Trp Lys
144                               340                               345                               350
146 Tyr Glu Gly Pro Ser Asp Ser Phe Lys Ala Leu Val Asp Met Ala Ala
147                               355                               360                               365
149 Val His Ser Ser Cys Arg Leu Cys Ile His Leu Ala Thr Val Ser Arg
150                               370                               375                               380
152 Glu Lys Glu Glu Asn Asn Pro Ser Leu Lys Arg Arg Pro Cys Lys Cys
153 385                               390                               395                               400
155 Thr Arg Gly Pro Glu Thr Val Tyr His Ile Tyr Val Arg Glu Arg Gly
156                               405                               410                               415
158 Arg Phe Glu Met Glu Ser Ile Tyr Leu Arg Ser Ser Asn Leu Thr Leu
159                               420                               425                               430
161 Asn Ala Val Lys Ala Ala Val Val Leu Lys Phe Thr Ser Leu Asn Leu
162                               435                               440                               445
164 Val Pro Val Trp Lys Thr Glu Arg Pro Glu Val Ile Arg Gly Gly Ser
165                               450                               455                               460
167 Ala Leu Lys Leu Tyr Lys Ile Tyr Pro Ile Gly Leu Thr Gln Arg Gln
168 465                               470                               475                               480
170 Ala Leu Tyr Thr Phe Ser Phe Lys Gly Asp Ala Asp Phe Arg Ser His
171                               485                               490                               495
173 Leu Glu Asn Asn Pro Cys Ala Lys Phe Glu Val Ile Phe Val
174                               500                               505                               510

```

177 <210> SEQ ID NO: 3

178 <211> LENGTH: 105

179 <212> TYPE: DNA

180 <213> ORGANISM: Artificial Sequence

182 <220> FEATURE:

183 <223> OTHER INFORMATION: Description of Artificial Sequence: GlcNAc-alpha1,3-fucosyl

185 <400> SEQUENCE: 3

186 gaagccctga agcactacaà atttagctta gcgtttgaaa attcgaatga ggaagattat 60

187 gtaactgaaa aattcttcca atcccttggt gctggaactg tccct 105

189 <210> SEQ ID NO: 4

190 <211> LENGTH: 35

191 <212> TYPE: PRT

192 <213> ORGANISM: Artificial Sequence

194 <220> FEATURE:

195 <223> OTHER INFORMATION: Description of Artificial Sequence: Mung bean

RAW SEQUENCE LISTING

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197 <400> SEQUENCE: 4

198 Glu Ala Leu Lys His Tyr Lys Phe Ser Leu Ala Phe Glu Asn Ser Asn

199 1 5 10 15

201 Glu Glu Asp Tyr Val Thr Glu Lys Phe Phe Gln Ser Leu Val Ala Gly

202 20 25 30

204 Thr Val Pro

205 35

208 <210> SEQ ID NO: 5

209 <211> LENGTH: 15

210 <212> TYPE: PRT

211 <213> ORGANISM: Artificial Sequence

213 <220> FEATURE:

214 <223> OTHER INFORMATION: Description of Artificial Sequence:n-terminal sequence

215 of tryptic peptide

217 <220> FEATURE:

218 <221> NAME/KEY: MISC FEATURE

219 <222> LOCATION: (5)..(5)

220 <223> OTHER INFORMATION: Xaa = any amino acid

222 <400> SEQUENCE: 5

W--> 224 Lys Pro Asp Ala Xaa Phe Gly Leu Pro Gln Pro Ser Thr Ala Ser

225 1 5 10 15

230 <210> SEQ ID NO: 6

231 <211> LENGTH: 10

232 <212> TYPE: PRT

233 <213> ORGANISM: Artificial Sequence

235 <220> FEATURE:

236 <223> OTHER INFORMATION: Description of Artificial Sequence:n-terminal sequence

237 of tryptic peptide

239 <400> SEQUENCE: 6

240 Pro Glu Thr Val Tyr His Ile Tyr Val Arg

241 1 5 10

244 <210> SEQ ID NO: 7

245 <211> LENGTH: 13

246 <212> TYPE: PRT

247 <213> ORGANISM: Artificial Sequence

249 <220> FEATURE:

250 <223> OTHER INFORMATION: Description of Artificial Sequence:n-terminal sequence

251 of tryptic peptide

253 <400> SEQUENCE: 7

254 Met Glu Ser Ala Glu Tyr Tyr Ala Glu Asn Asn Ile Ala

255 1 5 10

258 <210> SEQ ID NO: 8

259 <211> LENGTH: 10

260 <212> TYPE: PRT

261 <213> ORGANISM: Artificial Sequence

263 <220> FEATURE:

264 <223> OTHER INFORMATION: Description of Artificial Sequence:n-terminal sequence

265 of tryptic peptide

267 <400> SEQUENCE: 8

RAW SEQUENCE LISTING

DATE: 04/09/2003

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Input Set : A:\030560-057.ST25.txt

Output Set: N:\CRF4\04092003\I913858A.raw

268 Gly Arg Phe Glu Met Glu Ser Ile Tyr Leu

269 1 5 10

271 <210> SEQ ID NO: 9

272 <211> LENGTH: 29

273 <212> TYPE: DNA

274 <213> ORGANISM: Artificial Sequence

276 <220> FEATURE:

277 <223> OTHER INFORMATION: Description of Artificial Sequence:primer

279 <220> FEATURE:

280 <221> NAME/KEY: misc_feature

281 <222> LOCATION: (3)..(15)

282 <223> OTHER INFORMATION: n = any nucleotide

284 <400> SEQUENCE: 9

W--> 285 gcngartayt aygcngaraa yaayathgc

29

288 <210> SEQ ID NO: 10

289 <211> LENGTH: 22

290 <212> TYPE: DNA

291 <213> ORGANISM: Artificial Sequence

293 <220> FEATURE:

294 <223> OTHER INFORMATION: Description of Artificial Sequence:primer

296 <220> FEATURE:

297 <221> NAME/KEY: misc_feature

298 <222> LOCATION: (14)..(17)

299 <223> OTHER INFORMATION: n = any nucleotide

301 <400> SEQUENCE: 10

W--> 302 crtadatrtg rtanacngty tc

22

305 <210> SEQ ID NO: 11

306 <211> LENGTH: 20

307 <212> TYPE: DNA

308 <213> ORGANISM: Artificial Sequence

310 <220> FEATURE:

311 <223> OTHER INFORMATION: Description of Artificial Sequence:primer

313 <220> FEATURE:

314 <221> NAME/KEY: misc_feature

315 <222> LOCATION: (6)..(6)

316 <223> OTHER INFORMATION: n = any nucleotide

318 <400> SEQUENCE: 11

W--> 319 tadatnswyt ccatytcraa

20

322 <210> SEQ ID NO: 12

323 <211> LENGTH: 20

324 <212> TYPE: DNA

325 <213> ORGANISM: Artificial Sequence

327 <220> FEATURE:

328 <223> OTHER INFORMATION: Description of Artificial Sequence:primer

330 <400> SEQUENCE: 12

331 ctggaactgt ccctgtggtt

20

333 <210> SEQ ID NO: 13

334 <211> LENGTH: 20

335 <212> TYPE: DNA

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/913,858A

DATE: 04/09/2003
TIME: 11:30:18

Input Set : A:\030560-057.ST25.txt
Output Set: N:\CRF4\04092003\I913858A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; Xaa Pos. 5
Seq#:9; N Pos. 3,15
Seq#:10; N Pos. 14,17
Seq#:11; N Pos. 6

VERIFICATION SUMMARY

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Input Set : A:\030560-057.ST25.txt

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L:224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0